

A CLOSER LOOK: *TARGETED THERAPY AND IMMUNOTHERAPY*

A cancer diagnosis can feel overwhelming. Fortunately, advances in research and technology have led to more personalized ways to treat cancer like targeted therapy and immunotherapy. While surgery, chemotherapy, and radiation remain essential tools in cancer care, these newer therapies focus on the unique biology of each person's cancer, offering a more personalized approach.

It's important to talk with your care team about the potential benefits and risks of targeted or immunotherapy. Not all cancers have known targets, and responses vary. Your doctor will consider your overall health, treatment goals, and past therapies to help choose the best approach.

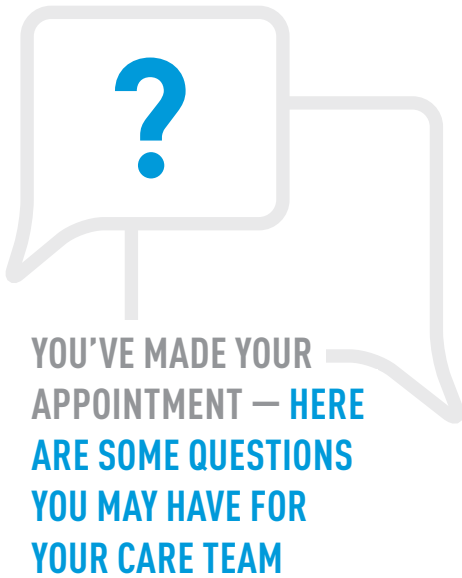
WHAT IS TARGETED THERAPY, AND HOW DOES IT WORK?

Targeted therapy is a type of cancer treatment that uses drugs designed to focus on specific changes or mutations in cancer cells, called biomarkers. Unlike traditional chemotherapy — which kills any fast-dividing cell — targeted therapies aim to hone in on cells with certain cancer-biomarkers, making them more precise and often less toxic to healthy cells.

Targeted therapies work in several ways:

- *Stop cancer cells from growing*
- *Change proteins in the cancer cells so the cells die*
- *Carry chemicals or radiation to the cancer cells to kill them*

Because these therapies are tailored to the unique characteristics of a person's cancer, they can be more precise and potentially more effective. However, side effects can still occur and may include skin changes, digestive issues, or effects on organs like the heart or thyroid, depending on the specific drug and target involved.



- ☐ *Is my cancer likely to respond to targeted therapy or immunotherapy?*
- ☐ *What are the potential side effects of these treatments?*
- ☐ *How will we monitor my response to treatment?*
- ☐ *How long will my treatment last?*
- ☐ *Are there clinical trials available that I should consider?*

WHAT IS IMMUNOTHERAPY, AND HOW DOES IT WORK?

Immunotherapy harnesses the power of your own immune system to recognize and destroy cancer cells. Normally, the immune system targets harmful invaders like viruses and bacteria. Because cancer cells are mutated versions of our own cells, they are often not identified by the immune system. Immunotherapy helps train and boost the immune system to identify and attack these cancer cells.

There are several types of immunotherapy, including checkpoint inhibitors, CAR T-cell therapy, and cancer vaccines. These treatments can be highly effective for certain cancers, though they may also cause side effects such as fatigue, skin irritation, or flu-like symptoms. In rare cases, the immune system may also attack healthy tissues, so ongoing monitoring is essential.

WHO IS ELIGIBLE FOR TARGETED OR IMMUNOTHERAPY?

The decision to pursue targeted or immune therapy depends on several factors, including the type of cancer you have, the stage of the disease, and whether your cancer cells carry specific biomarkers. Your oncologist may recommend *biomarker testing* to determine if this type of treatment may be an option for you.

NOTES:



RESOURCES

Explore more resources like this, including a short video on cancer treatment types, at www.jax.org/patients

